REMARKS

Claims 1-18 are pending in the present application. Claims 1-4 and 11-16 are amended; and claims 17 and 18 are added. Reconsideration of the claims is respectfully requested.

Applicants note that original claims 1-15 were mis-numbered, as two instances of claim 12 appeared in the claims as originally submitted. Applicants renumbered the second instance of claim 12 as claim 13 and renumbered original claims 13-15 as claims 14-16 accordingly.

I. 35 U.S.C. § 101

The examiner rejects claims 1-10 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. Applicants have amended claims 1-10 to specify that the methods comprise computer implemented steps. Claims 1-10 as amended are methods implemented in a physical form. Thus, Applicants have overcome the rejection under 35 U.S.C. § 101.

II. 35 U.S.C. § 112, Second Paragraph

The examiner rejects claims 1-15 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. Regarding claim 1, the examiner believes that,

> Claim 1 recites the limitation of "sub-system" in a "computer system." There is insufficient antecedent basis for this limitation in the claim. It appears that the first interface and the second interface should be related, but there is no positive language showing the first interface and second interface to be related. The preamble mentions term "computer system" which normally means "the configuration that includes all functional components of a computer and its associated hardware," but there is no step of "functional components" in the system. It is also vague on "the proposed handler sub-system." In the body of the claim, term "interface," which normally means "the point at which a connection is made between two elements so that they can work with each other" but no step of "connection" appears in the

> interface. It appears that they should be related, but no positive language showing the relation ship has been shown.
>
> Office Action of March 15, 2005, p. 4 (emphasis in original).

Applicants respectfully traverse in-part the rejection of claim 1. Claim 1 as amended is as follows:

> 1. A method of developing a computer software system, comprising the computer-implemented steps of:
>
> defining a first interface associated with a proposed view sub-system and with a proposed business logic sub-system, wherein the proposed view sub-system and the proposed business logic sub-system interact only via the first interface;
>
> defining a second interface associated with a proposed handler sub-system and with the proposed business logic sub-system, wherein the proposed handler sub-system and the proposed business logic sub-system interact only via the second interface;
>
> wherein the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other;
>
> creating the proposed view sub-system in accord with the first interface; and
>
> creating the proposed handler sub-system in accord with the second interface.

Regarding the examiner's belief that no positive language shows the first and second interfaces to be related and that no "connection appears in the interface," applicants have amended claim 1 to overcome the rejection. Claim 1 as amended now provides that the first interface is associated with the proposed view sub-system and the proposed business logic sub-system and that the two sub-systems interact via the first interface. In addition, claim 1 provides that the second interface is associated with the proposed handler sub-system and the proposed business logic sub-system and that the two sub-systems interact via the second interface. Thus, claim 1 defines a relationship between all cited components. Accordingly, Applicants have overcome this portion of the rejection under 35 U.S.C. § 112, second paragraph.

Regarding the examiner's belief that the term "sub-system" lacks antecedent basis, Applicants respectfully point out that antecedent basis does exist for the claimed term. For each instance that the term "sub-system" appears in claim 1, the term is part of a term that

represents a larger abstract object. For example, claim 1 refers to "a proposed view sub-system." The terms "a proposed view" modify and are a part of the term "sub-system," and are thus part of the same abstract claim object. Because this claim object is preceded by the word "a," this claim object establishes antecedent basis for the claim term. Similarly, the terms "proposed business logic sub-system" and "proposed handler sub-system" are also abstract claim objects which have antecedent basis in claim 1. Accordingly, Applicants have overcome this portion of the rejection under 35 U.S.C. § 112, second paragraph.

The examiner also believes that "the preamble mentions the term 'computer system'... but there is no step of 'functional components' in the system." Applicants point out that the term used in the preamble is "computer software system," not "computer system." Thus, this portion of the rejection is misplaced. The claimed computer software system does contain limitations which designate it as a software system.

The examiner also believes that the term "the proposed handler sub-system" is vague. Applicants have well-defined the term "proposed handler sub-system" on page 5, line 20, through page 6, line 4. In addition, Applicants describe the action of the claimed handler sub-system on page 6, line 20 through page 7, line 5. Thus, in view of the specification, the claimed term is clear. Accordingly, Applicants have overcome this portion of the rejection under 35 U.S.C. § 112, second paragraph.

Regarding the rejection of claim 11, the examiner believes that:

> Claim 11 recites the limitation of "sub-system" in a "computer system." There is insufficient antecedent basis for this limitation in the claim. It appears that the first interface and the second interface should be related, but there is no positive language showing the first interface and second interface to be related. The preamble mentions term "computer system" which normally means "the configuration that includes all functional components of a computer and its associated hardware," but there is no step of "functional components" in the system. It appears that they should be related, but no positive language showing the relationship has been shown. It is not clear on "a view of sub-system, including presentation objects which provide a user interface." There is a step missing for having templates and database prior to view the sub-system.

Office Action of March 15, 2005, pp. 4-5 (emphasis in original). Applicants respectfully traverse this rejection. Claim 11 as amended provides as follows:

11. (Currently Amended) A computer software system in a computer readable medium, said system comprising:

a view sub-system including presentation objects which provide a user interface;

a business logic sub-system including use case objects which hold business data and implement business functions;

a handler sub-system including controller objects which control actions of the view sub-system and actions of the business logic sub-system;

a data interface through which the view sub-system obtains business data for the presentation objects; and

a business interface through which the handler sub-system invokes business functions.

Regarding the examiner's belief that the term "sub-system" lacks antecedent basis, Applicants point out that the term as used in claim 11 does have antecedent basis for the same reason that the term as used in claim 1 has antecedent basis. Thus, this portion of the rejection under 35 U.S.C. § 112, second paragraph has been overcome.

Regarding the examiner's belief that the first and second interfaces are not related, Applicants point out that the interfaces are related. The handler sub-system includes controller objects which control actions of the view sub-system and actions of the business logic sub-system. In addition, the data interface is related to the view sub-system and the business data sub-system because these sub-systems interact through the data interface. Similarly, the business interface is related to the handler sub-system because the handler sub-system invokes business functions through the business interface. Because of the defined interrelationship between the data interface, the business interface, the handler sub-system, the view sub-system, and the business logic sub-system, the relationship between the data interface and the business interface is well-defined. Thus, this portion of the rejection under 35 U.S.C. § 112, second paragraph has been overcome.

Regarding the examiner's belief regarding the term "computer system," Applicants point out that claim 11 is directed to a "computer software system." Thus, claim 11 is definite for the same reason that claim 1 is definite in this regard. Accordingly, this portion of the rejection under 35 U.S.C. § 112, second paragraph has been overcome.

Regarding the examiner's belief regarding the claimed limitation of, "a view sub-system including presentation objects which provide a user interface," Applicants point out

that this term is well-defined in the specification. Like the other components of the claimed system, the claimed terms are well-described on pages 6-7 of the specification. Thus, the claimed limitation is definite. Accordingly, this portion of the rejection under 35 U.S.C. § 112, second paragraph has been overcome.

Regarding the examiner's belief that, "there is a step missing for having templates and database prior to view the sub-system," Applicants do not understand the rejection. The claimed computer program is well-described in the specification and does not necessarily require templates and a database to be defined prior to defining the view sub-system. Because the claimed computer program does not necessarily require these components and because the claimed computer program is well-defined in the specification, this portion of the rejection under 35 U.S.C. § 112, second paragraph has been overcome.

Regarding the examiner's rejection of claim 13 (now claim 14), Applicants have amended claim 13 (now claim 14) to overcome the rejection. Claim 13 (now claim 14) now claims first through fifth instructions, thereby overcoming both of the examiner's concerns regarding execution and relationship between the steps. Accordingly, this portion of the rejection under 35 U.S.C. § 112, second paragraph has been overcome.

Regarding the examiner's rejection of claim 12, Applicants do not understand the rejection. The examiner states that claim 12 is indefinite, but does not describe why the examiner believes claim 12 is indefinite. In the light of the amendments to the claims, Applicants request that the rejection be withdrawn. Therefore the rejection of claims 1-15 under 35 U.S.C. § 112, second paragraph has been overcome.

III. 35 U.S.C. § 102, Anticipation

The examiner rejects claims 1-15 under 35 U.S.C. § 102(e) as anticipated by *Bowman-Amuah*, Presentation Services Patterns in a Netcentric Environment, U.S. Patent 6,640,249 (Oct. 28, 2003) (hereinafter "*Bowman*"). This rejection is respectfully traversed.

Regarding claim 1, the examiner believes that:

> As for claim 1, BOWMAN-AMUAH discloses a method of developing a computer software system, comprising the steps of:

defining a first interface between a proposed view sub-system and a proposed business logic sub-system {See Fig. 40, Element 4006};

defining a second interface between a proposed handler sub-system and the proposed business logic sub-system {See Fig. 40, Element 4002};

creating the proposed view sub-system in accord with the first interface {see Fig. 40, Element 4006-User Interface}; and

creating the proposed handler sub-system in accord with the second interface {See Fig. 40, Element 4002-Domain Business Object}.

Office Action of March 15, 2005, p. 6.

Applicants have amended claim 1. Claim 1 as amended is as follows:

1. A method of developing a computer software system, comprising the computer-implemented steps of:
defining a first interface associated with a proposed view sub-system and with a proposed business logic sub-system, wherein the proposed view sub-system and the proposed business logic sub-system interact only via the first interface;
defining a second interface associated with a proposed handler sub-system and with the proposed business logic sub-system, wherein the proposed handler sub-system and the proposed business logic sub-system interact only via the second interface;
wherein the proposed view sub-system, the proposed business logic sub-system, and the proposed handler sub-system are all isolated from each other;
creating the proposed view sub-system in accord with the first interface; and
creating the proposed handler sub-system in accord with the second interface.

Claim 1 as amended now contains the limitations that the first and second interfaces are associated with the various claimed sub-systems. Claim 1 as amended also provides that the proposed view sub-system and the proposed business logic sub-system interact *only* via the first interface and that the proposed handler sub-system and the proposed business logic sub-system interact *only* via the second interface. Claim 1 as amended also provides that the proposed view sub-system, the proposed business logic

sub-system, and the proposed handler sub-system are all isolated from each other. *Bowman* does not show or suggest the limitations of claim 1 as amended.

The examiner only cites figure 40 of *Bowman* for the proposition that *Bowman* anticipates original claim 1. Figure 40 does not teach all of the presently claimed invention in amended claim 1. Figure 40 of *Bowman* is as follows:

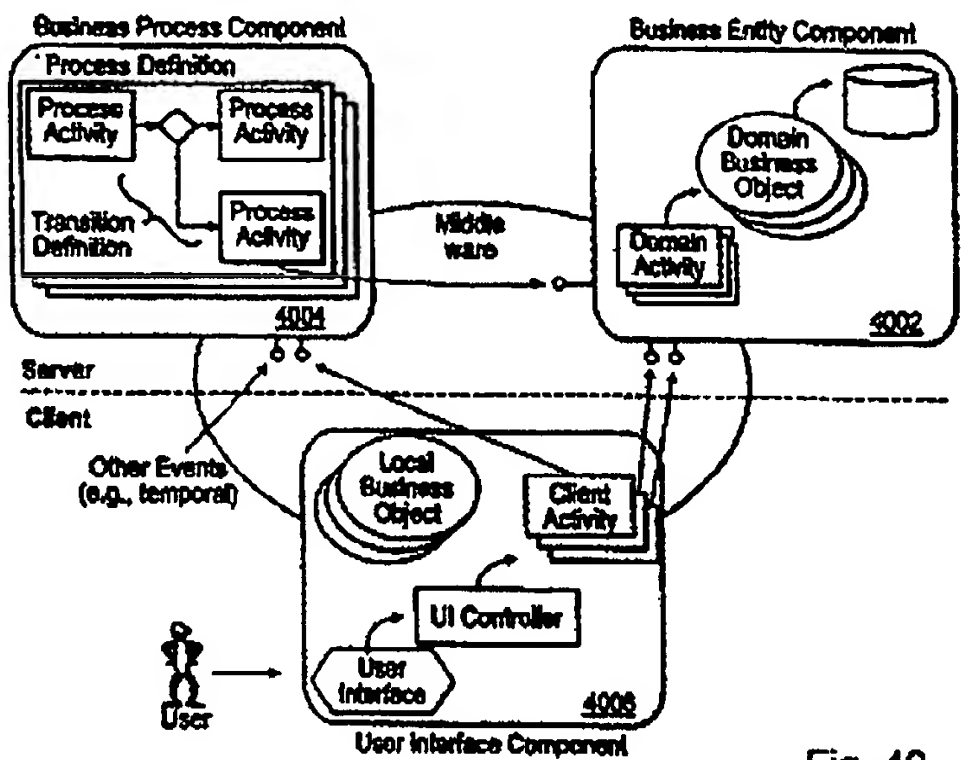

Fig. 40

The text describing figure 40 of *Bowman* is as follows:

> FIG. 40 is a diagram of the Eagle Application Model which illustrates how the different types of Partitioned Business Components might interact with each other. Business Entity Components 4002 and Business Process Components 4004 typically reside on a server, while User Interface Components 4006 typically reside on a client.

Bowman, col. 130, ll. 27-32.

Figure 40 describes how partitioned business components interact with each other. *Bowman* does not show or suggest a proposed handler sub-system as claimed. Contrary to the examiner's assertion, the business entity component, element 4002, is not a handler sub-system and *Bowman* does not state otherwise in the description. Thus, *Bowman* does not anticipate claim 1.

Even if figure 40 of *Bowman* did show a proposed view sub-system, a proposed business logic sub-system, and a proposed handler sub-system as claimed, *Bowman* does not show first and second interfaces as claimed. Although *Bowman* might show that

middleware somehow has a relationship with the business process component, the business entity component, and the user interface component, *Bowman* does not show or suggest that the various components interact via the middleware. *Bowman* does not suggest otherwise in the description. *Bowman* also does not show or suggest that the various components *only* interact via the middleware, or that the various components are isolated from each other. Thus, *Bowman* does not show or suggest the limitations of claim 1 as amended. Accordingly, *Bowman* does not anticipate claim 1.

Regarding claims 11 and 14, these claims specify a data interface only through which the view sub-system obtains business data for the presentation objects and a business interface only through which the handler sub-system invokes business functions. Although claims 11 and 14 contain these same limitations, the examiner points to different portions of *Bowman* for the proposition that *Bowman* shows these limitations. Regarding claim 11 the examiner cites figures 33 and 135. Regarding claim 14 the examiner cites figures 40 and 39. These figures are as follows:

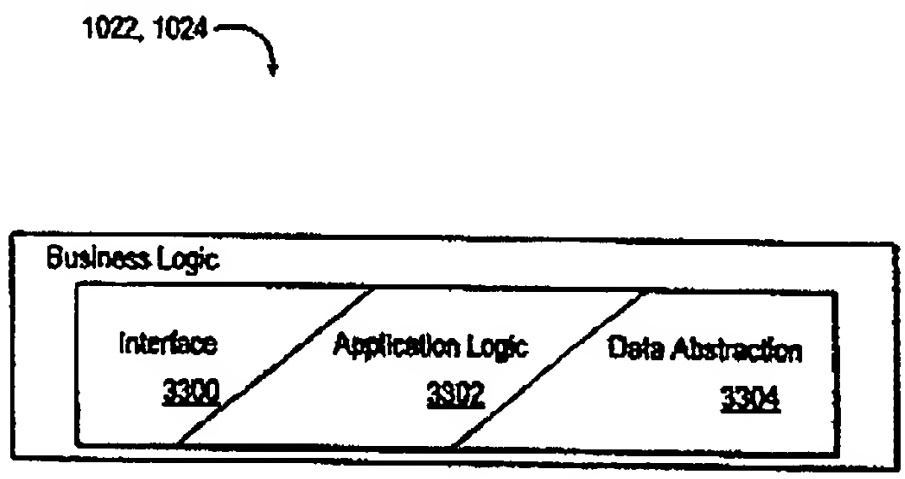

Fig. 33

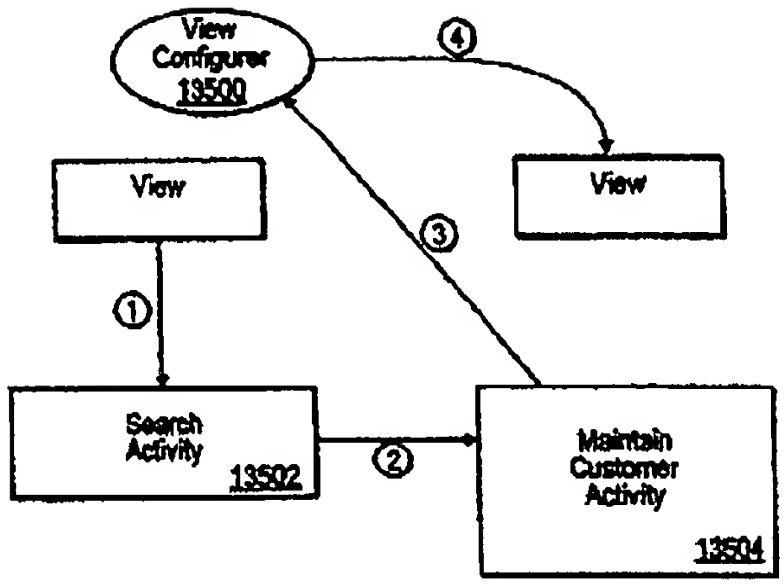

Fig. 135

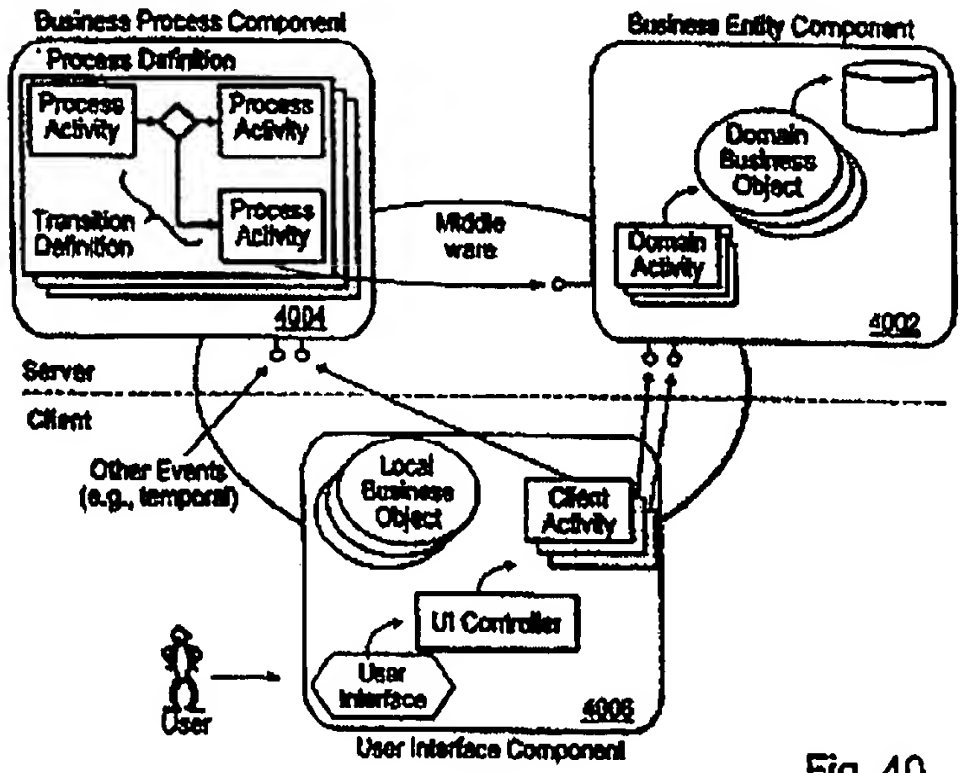

Fig. 40

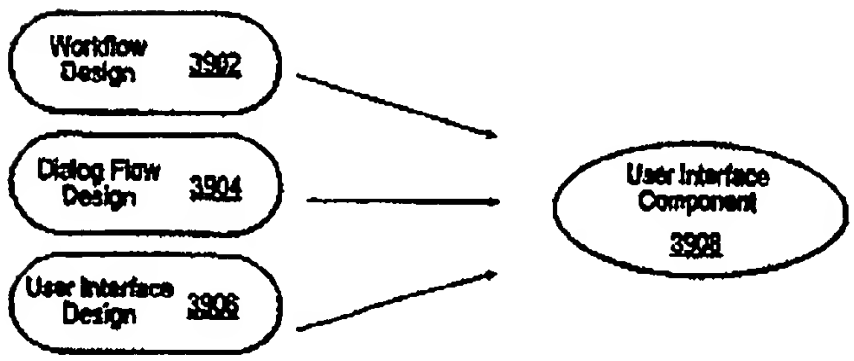

Fig. 39

None of these figures show or suggest an interface only through which a view sub-system obtains business data for the presentation objects. None of these figures show or suggest an interface only through which a handler sub-system invokes business functions. Element 3304 in figure 33, which the examiner cites as an interface, is data abstraction in a business logic component. This is not an interface. Element 13504 in figure 135, which the examiner cites as an interface, is "main customer activity." This is not an interface. Element 3904 in figure 39 (which the examiner apparently mistakenly cited as in figure 40), which the examiner cites as an interface, is "dialog flow design." This is not an interface. Element 3902 in figure 39, which the examiner cites as an interface, is a user interface *design*. This is not an interface, but the design for an interface that does become a part of the user interface component 3908. Thus, overall, figure 39 only shows what makes up the user interface component shown in figure 40. However, none of the items shown in figure 40 show the interface *as claimed*. For example, none of the elements shown in figure 39 can be interfaces between a view sub-system, a handler sub-system, and a business sub-system as claimed. In addition, nothing in *Bowman* shows or suggests that the components *only* interact through the interfaces as claimed. Because nothing in *Bowman* shows or suggests the limitations of claims 11 and 14, *Bowman* does not anticipate these claims.

Because claims 2-10, 12, 13, 15, and 16 depend from claims 1, 11, and 14 accordingly, the same distinctions between *Bowman* and claims 1, 11, and 14 can be made between *Bowman* and claims 2-10, 12, 13, 15, and 16. Additionally, claims 2-10, 12, 13, 15, and 16 claim other additional combinations of features not suggested by the reference. In fact, contrary to the examiner's statements, *Bowman* fails to anticipate any of the dependent claims. Consequently, it is respectfully urged that the rejection of claims 1-16 have been overcome.

Furthermore, *Bowman* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. *Bowman* is directed to non-presentation logic executed on a client such that the non-presentation logic is assigned to an activity for allowing reuse of the non-presentation logic across multiple, volatile user interfaces. *Bowman* has very little to do with the claimed methods and devices, and does not discuss interfaces between subsystems as claimed. Absent the examiner pointing out some teaching or incentive to implement interfaces between sub-systems, one of ordinary

skill in the art would not be led to modify *Bowman* to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify *Bowman* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using Applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

IV. New Claims

Applicants have added claims 17 and 18. Claims 17 and 18 require that the various sub-systems are isolated from each other. *Bowman* does not show or suggest these limitations anywhere. Thus, claims 17 and 18 should be in condition for allowance.

V. Conclusion

It is respectfully urged that the subject application is patentable over *Bowman* and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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